NOVA SCOTIA

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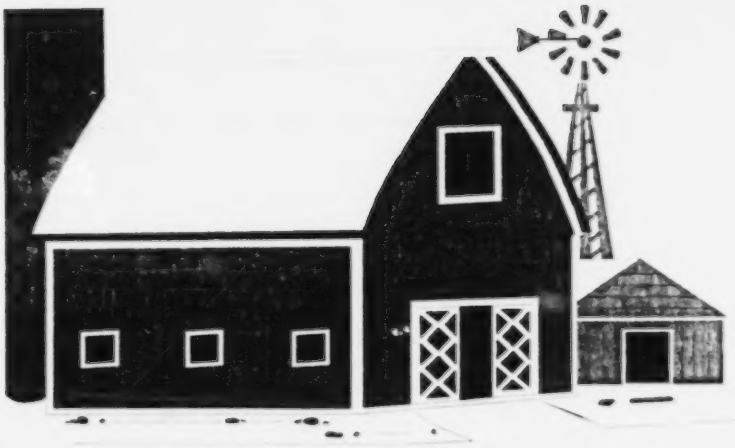
Nova Scotia Farm Management

Analysis Project



Business Management and Economic Development Services
Nova Scotia Department of Agriculture and Fisheries

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NOVA SCOTIA FARM MANAGEMENT ANALYSIS PROJECT

The Nova Scotia Farm Management Analysis Project, or **FMAP**, is designed to assist Nova Scotia farm managers develop their business management knowledge and skills.

FMAP provides farm managers with a farm planning tool from which data is gathered. The compiled data gives a comparative analysis with similar farm businesses as well as a complete financial and production summary of their own business. A year-to-year analysis of business performance improves the farm manager's ability to recognize and react to opportunities resulting from change.

In 2001, 180 individual farm businesses participated in the Farm Management Analysis Project. Participants ranged from smaller part-time businesses to large multi enterprise farms.

At present, the FMAP is available to all Nova Scotia dairy, hog, beef, mink, tree fruit, and blueberry producers.

For further information, contact the Business Management & Economics Office at (902)-893-6580.

Formulas Used To Calculate Financial Analysis

1. Liquidity

Current Ratio = Current Assets ÷ Current Liabilities

- The current ratio measures the business' ability to meet financial obligations as they come due without disrupting normal operations.
- If the ratio is greater than 1, the business is considered to be liquid. A ratio of less than 1 may indicate a potential liquidity problem.

Working Capital = Current Assets - Current Liabilities

- Working capital is the cash available to the business to meet financial obligations as they come due without disrupting normal operations.

2. Solvency

Percent Equity = Owner's Equity ÷ Total Assets x 100%

- Percent Equity is a measure of the owner's equity in the business. It measures the proportion of total assets financed by the owner of the business. A higher percentage indicates lower financial risk.

Debt to Equity = Total Liabilities + Owner's Equity

- The debt to equity ratio is a measure of the extent to which creditors have financed the business compared to the owners. The higher the value of the ratio, the greater the proportion of financing that has been provided by creditors.

3. Profitability

Return on Assets = (Net Income + Interest - Value of Operator and Unpaid Family Labour) x 10 ÷ Average Total Assets for the Period

- Return on assets shows the business' ability to earn a return on its total assets. The higher the value, the greater the return on assets. The value of operator and unpaid family labour reflects the value in the local marketplace for similar work. This was assumed to be $8.hr.

Return on Equity = (Net Income - Value of Operator and Unpaid Family Labour) x 100% ÷ Average Owner Equity

- Return on equity provides a measure of the return to the owner on his/her investment in the business. The higher the percentage, the greater the return on equity.

Capital Turnover = Revenue ÷ Total Assets

- This ratio indicates the extent to which a business utilizes its assets to generate revenue. A high ratio indicates efficient use of assets.

4. Financial Efficiency

Contribution Margin = Contribution Margin x 100% ÷ Revenue

The contribution margin percentage measures the financial efficiency of the business in terms of funds generated directly from operations. The higher the ratio, the more efficient the business.

Capital Replacement, Personal Exemption & Debt Servicing Margin = Net Income + Interest on Term Debt + Depreciation

This amount represents the dollars generated from operations that are viable to cover capital replacement, withdrawals for personal living expenses, and to make annual payments on all debt.

Beef Farm Business Management Analysis

Income Statement
Average 42 Farms

	Total	$ Per Cow
REVENUE		
Calves Sold	$25,680.60	$490.24
Finished Cattle Sales	4,583.00	87.49
Breeding Stock	3,057.37	58.36
Other Livestock - Culls	6,576.28	125.54
Custom Work	1,393.95	26.61
Crop Sales	613.19	11.71
Government Assistance	6,059.70	115.68
NISA Income	801.09	15.29
Other Income	7,160.56	136.69
INVENTORY ADJUSTMENT	1,617.67	30.88
TOTAL REVENUE	$57,543.42	$1,098.50
OPERATING EXPENSES		
Forages Purchased	$1,464.30	$27.95
Grain Purchased	1,460.74	27.89
Salt & Mineral	434.60	8.30
Cropping Expense	5,131.28	97.96
Livestock Purchases	4,410.16	84.19
Vet & Medicine	1,590.79	30.37
Breeding	207.23	3.96
Equipment R&M	7,522.30	143.60
Motor Vehicle	1332.60	25.44
Building/Fence Repairs	2,405.40	45.92
Custom Work	1,983.40	37.86
Custom Trucking	422.49	8.07
Marketing	549.33	10.49
Hired Labour	3,121.30	59.59
Farm Supplies / Small Tools	980.93	18.73
Legal/Accounting/Office	499.86	9.54
Utilities	833.65	15.91
Short Term Interest	1,312.79	25.06
Misc.	609.91	11.64
TOTAL OPERATING EXPENSES	$36,273.07	$692.45
OPERATING MARGIN	$21,270.35	$406.05
FIXED EXPENSES		
Insurance	$1,375.93	$26.27
Taxes/Rent	3,072.19	58.65
Long Term Interest	2,136.16	40.78
Depreciation: Buildings	2,133.14	40.72
Depreciation: Machinery & Equipment	8,196.42	156.47
TOTAL FIXED EXPENSES	$16,913.84	$322.88
TOTAL EXPENSES	$53,186.91	$1,015.33
NET INCOME (LOSS)	$4,356.51	$83.17

Breakeven Analysis

Cattle Crop Sold (Note 1)	Weight (Ave. Lbs Live Wt/Hd)	Number (Hd)	Selling Price ($/lb)
Calves	649	32	1.23
Finished Cattle	913	5	1.11
Other Cattle	866	8	1.34
Average	714	44	1.26

Inventory Adjustment	Beginning #	Ending #	Change
Calves	26	26	0
Finished Cattle	6	6	0
Cows	53	52	(1)
Replacement Heifer	7	8	1
Bulls	2	2	0
Total $ Value	$83,412	$85,030	$1,618
Return on Cattle Investment (Note 2)			

Breakeven Prices	$/Lb.
On Total Beef Costs	1.70
On Operating Costs	1.04

Note 1: Selling Prices are calculated as:

$$\frac{\text{Livestock Sold - \$}}{\text{Selling wt - lbs}}$$

Note 2: Return on Investment is calculated as:

$$\frac{\text{Net Income}}{\text{Ending Inventory}}$$

Management Analysis

(A) Production Analysis		2001 Average
Calving Percentage	(%)	96.5
Culling Rate	(%)	12.6
Lbs Weaned Calf Produced per Cow	(lbs/cow)	571.8

(B) Financial Analysis		2001 Average
Feed Expense Per Lb. Sold	($/lb)	0.27
Total Revenue Per Weaned Calf	($/hd)	$1,166.05
Total Expenses per Weaned Calf	($/hd)	$1,077.77
Capital Replacement, Personal Exp & Debt Servicing Margin (Note 1)	($)	$16,822.23
Fixed Expenses as a Percent of Total Revenue	(%)	29.4
Variable Expenses as a Percent of Total Revenue	(%)	63.0
All Interest Expenses as % of Total Revenue	(%)	6.0
Contribution Margin % (Note 2)	(%)	37.0

Note 1: **Capital Replace., Personal Exp. & Debt Servicing Margin = Net Income + Long Term Interest +Depreciation**

*This amount represents the dollars generated from operations that are available to cover capital replacement, withdrawals for personal living expenses, and to make annual payments on all debt.

Note 2: **Contribution Margin % = $\frac{\text{Operating Margin}}{\text{Total Revenue}}$ x 100%**

*This contribution margin percentage measures the financial efficiency of the business in terms of funds generated directly from operations. The higher the ratio, the more efficient the business.

Crop Production

	All Farms Per Acre Produced	All Farms Per Acre Pasture
Total Crop Costs	$36.12	$48.71
Machinery and Repair Costs	$52.96	$71.40
Depreciation - Machinery	$15.02	$77.80
Cows	0.37	0.50
Calf Weight Gain in lbs	146.42	197.43

Blueberry Farm Business Management Analysis

Statement of Income and Expenses

Average - 14 Farms

Revenue	Total	Per Pound	% of Revenue
Total Blueberry Sales	$83,322	$0.409	75.58
Crop Insurance	229	0.001	0.21
Grants & Subsidies	6,464	0.032	5.86
Custom Work	16,952	0.083	15.38
Other Blueberry Revenue	23,645	0.116	21.45
Other Crop Income	0	0.000	0.00
Revenue from Development	650	0.003	0.59
Misc. Non-Blueberry Revenue	2,630	0.013	2.39
Total Non-Blueberry Revenue	3,280	0.002	2.98
Total Farm Revenue	$110,247	0.54	100.00
Plus: Inventory Change	179	0.00	
Gross Farm Revenue	$110,426	$0.54	
Operating Expenses	**Total**	**Per Pound**	**% of Operating**
Berries Purchased for Resale	$12,998	$0.064	14.66
Labor Expense	29,705	0.146	33.50
Custom Work Expense	13,755	0.068	15.51
Land Development Expense	3,479	0.017	3.92
Marketing Expense	43	0.000	0.05
Supplies	373	0.002	0.42
Sprays & Chemicals	4,194	0.021	4.73
Fertilizer & Lime	1,464	0.007	1.65
Pollination	3,111	0.015	3.51
Packaging Material & Printing	1,128	0.006	1.27
Fuel - Diesel/Gas/Lube	2,102	0.010	2.37
Tractor & Machinery	4,768	0.023	5.38
Truck & Vehicle	4,592	0.023	5.18
Building Repairs	403	0.002	0.45
Professional Fees	1,795	0.009	2.02
Crop Insurance	88	0.000	0.10
Office Expenses/Fees	1,155	0.006	1.30
Utilities	2,304	0.011	2.60
Interest on Operating	571	0.003	0.64
Misc. Blueberry Expense	639	0.003	0.72
Misc. Non-Blueberry Expense	11	0.000	0.01
Total Operating Expenses	$88,667	$0.44	100.00
Fixed Expenses	**Total**	**Per Pound**	**% of Fixed**
Rentals & Leases	$1,536	$0.008	6.79
Insurance	2,342	0.011	10.36
Property Taxes	511	0.003	2.26
Term Interest	3,259	0.016	14.41
Depreciation - Buildings	1,949	0.010	8.62
Depreciation - Machinery	8,646	0.042	38.23
Depreciation - Equipment	4,371	0.021	19.33
Total Fixed Expenses	$22,614	$0.111	100.00
Net Farm Income (Loss)	($1,034)	($0.01)	

Balance Sheet

	2001	2000
Assets		
Current Assets		
Cash	$3,814	$18,582
Blueberry Sales Receivable	0	0
Other Accounts Receivable	11,878	8,802
Inventory (Note 1)	671	491
Other Current Assets	11,195	8,770
Total Current Assets	$27,558	$36,646
Capital Assets		
Blueberry Land	$166,791	$161,273
Other Land	27,800	27,800
Buildings (Note 2)	12,544	13,275
Machinery (Note 2)	31,882	38,130
Equipment (Note 2)	19,383	21,387
Other Fixed Assets	10,702	10,149
Total Long Term Assets	$269,102	$272,013
Total Assets	$296,660	$308,659
Liabilities and Owner's Equity		
Current Liabilities	$25,789	$27,395
Long Term Liabilities	63,413	69,280
Total Liabilities	$89,203	$96,675
Owner's Equity	$207,458	$211,984

Total Assets	Per Acre*	2138.64
	Per Pound	1.46
Total Liabilities	Per Acre*	643.07
	Per Pound	0.44
Fixed Expenses	% of Total Cost	20.32
Variable Expenses	% of Total Cost	79.68

* Total Acres of Land in Blueberry Production

Note 1: Inventory includes fertilizer, sprays and chemicals and other supplies carried over at the end of December.

Note 2: Land is valued at its original cost. All depreciable assets are valued at cost less accumulated depreciation or book values. The book values are taken from the Capital Cost Allowance (CCA) schedules in the income tax returns.

Financial Analysis

Financial Measure		2001
1. Liquidity		
Current Ratio		1.07
Working Capital		1,769
2. Solvency		
Debt to Asset Ratio	(%)	21.38
Debt to Equity Ratio	(%)	43.00
3. Profitability		
Return on Assets	(%)	no return
Return on Equity	(%)	no return
Gross Margin Ratio	(%)	74.09
4. Financial Efficiency		
Interest as % of Revenue	(%)	0.03
Capital Replace., Personal Exp. & Debt Servicing Margin	($)	$17,191

Production Management

(A) Production Summary	Totals	
Total Acres	164	
Harvested Acres	71.93	
Total Berries Harvested (Pounds)	203,761	
Pounds of Berries Sold/Acre Harvested	2,833	
(B) Custom Work	**$/Pound**	**% of Total**
Production	0.00	3.98
Harvesting	0.02	28.79
Packing	0.00	0.00
Land Development	0.03	39.44
Land Maintenance	0.02	27.79
(C) Land Development	**$/Pound**	**% of Total**
Custom Work	0.03	60.93
Other Land Development	0.02	39.07
Total Development Expense	0.04	100.00
(D) Labour Analysis		
Lbs. Berries / PE (1)	203,761	
Harvested Acres / PE	72	
Value of Hired Labour	$29,705	
Per Pound	0.15	
Value of Family Labour	$0	
Per Pound	0.00	
Value of Operator Labour	$6,671	
Per Pound	0.03	

(1) One P.E. (Person Equivalent) is equal to 2600 hours of labour per year, i.e. 50 hours per week times 52 weeks per year. One operator is assumed to be equal to one person equivalent.

(F) Net Cost of Producing Blueberries	
Total Cash Expenses	$93,056
Plus: Depreciation	14,966
Inventory Change	179
Interest on Equity (1)	12,583
Unpaid Family Labour (2)	0
Operator Labour	6,671
Less: Non-Blueberry Revenue (3)	26,925
Net Cost of Producing Blueberries	$100,530
Less: Blueberry Sales	$83,322
Net Return (Loss)	**($17,208)**
Net Return Per Pound of Harvested Berries	($0.08)

(1) Interest on equity is assumed to be 6%.

(2) The hourly wage calculated for hired labour is used to value family labour.

(3) Non-Blueberry Revenue is the total of other blueberry and non-blueberry revenue.

Dairy
Farm Business
Management
Analysis

Income Statement
Average - 78 Farms

	Total	Per Cow	Per HL
REVENUE			
Milk Sales	$318,839	$4,779	$58.02
Milk Subsidies	3,556	53	0.65
Livestock Sales - Dairy	24,380	365	4.44
Livestock Sales - Other	3,158	47	0.57
Crop Sales	4,558	68	0.83
Grants and Subsidies	9,152	137	1.67
Custom Work	3,144	47	0.57
Miscellaneous	7,300	109	1.33
Miscellaneous (Non Dairy)	10,350	155	1.88
TOTAL REVENUE	$384,435	$5,762	$69.95
Plus: Inventory Change	24,347	365	4.43
GROSS FARM REVENUE	$408,782	$6,127	$74.38
OPERATING EXPENSES			
Feed & Supplements	$64,018	$960	$11.65
Crop Expense	17,931	269	3.26
Livestock Purchases	6,946	104	1.26
Milk Hauling	12,499	187	2.27
Milk Marketing Costs	6,833	102	1.24
Vet and Medicine	7,655	115	1.39
Breeding	5,549	83	1.01
Dairy Supplies & Services	11,139	167	2.03
Truck & Auto Expense	5,577	84	1.01
Tractor & Machinery Repairs	20,235	303	3.68
Building & Fence Repairs	8,906	133	1.62
Operating Interest	4,720	71	0.86
Custom Work	7,418	111	1.35
Hired Labour	35,596	534	6.48
Utilities	8,122	122	1.48
Miscellaneous	8,696	130	1.58
Miscellaneous (Non Dairy)	3,101	46	0.56
TOTAL OPERATING EXPENSES	$234,940	$3,522	$42.75
NET OPERATING INCOME	$173,842	$2,606	$31.63
FIXED EXPENSES			
Rentals & Leases	$7,285	$109	$1.33
Insurance & Taxes	8,872	133	1.61
Interest	36,772	551	6.69
Depreciation	34,938	524	6.36
TOTAL FIXED EXPENSES	$87,867	$1,317	$15.99
NET INCOME (LOSS)	$85,975	$1,289	$15.64

Balance Sheet

		2001
CURRENT ASSETS		
Cash		$540
Accounts Receivable		13,615
Inventory (Note 1)		
Livestock	154,123	
Crops and Supplies	38,638	192,761
TOTAL CURRENT ASSETS		$206,917
LONG TERM ASSETS		
Machinery & Equipment (Note 2)		$110,610
Buildings (Note 2)		113,127
Land (Note 2)		141,929
Milk Quota		438,715
Co-op Dairy Investment		58,629
Other Farm Assets		12,138
NISA Investments		3,183
TOTAL LONG TERM ASSETS		$878,331
TOTAL ASSETS		$1,085,248
LIABILITIES AND OWNERS' EQUITY		
CURRENT LIABILITIES		$76,159
LONG TERM LIABILITIES		570,080
TOTAL LIABILITIES		$646,239
OWNERS' EQUITY		$439,009
TOTAL LIABILITIES AND OWNERS' EQUITY		$1,085,248

		All Farms	Top 25%
Total Assets			
Per Cow	($)	$16,267	$14,737
Per Kg. of Quota	($)	$19,603	$18,127
Per HL Shipped	($)	$197	$176
Total Liabilities			
Per Cow	($)	$9,687	$8,049
Per Kg. of Quota	($)	$11,673	$9,901
Per HL Shipped	($)	$118	$96
Fixed Expenses as % of Total Cost	(%)	27.2%	24.8%
Variable Expenses as % of Total Cost	(%)	72.8%	75.2%

(1) Livestock inventory includes all breeding stock, market livestock and animals retained for replacements. Crops and supplies inventory includes all feed, fertilizer and supplies. Inventory values are based on an estimate of Fair Market.

(2) Land is valued at its original cost. All depreciable assets are valued at cost less accumulated depreciation or book value. The book values are taken from the Capital Cost Allowance (CCA) schedules in the income tax returns.

Financial Analysis

Financial Measure		2001
1. Liquidity:		
Current Ratio		2.7
Working Capital	($)	130,758
2. Solvency:		40%
Percent Equity	(%)	1.5
Debt to Equity Ratio		
3. Profitability		
Return on Assets	(%)	9.0
Return on Equity	(%)	13.4
Capital Turnover	(Times/Yr)	0.4
4. Financial Efficiency		
Interest as % of Revenue	(%)	9
Contribution Margin	(%)	43
Capital Replace., Personal Exp. & Debt Servicing Margin	($)	132,013

Crop Expense Analysis

Item	All Farms Cost/Acre	2001 Top 25% Cost/Acre
Seed	$13.04	$10.67
Spray	4.85	3.64
Fertilizer	30.91	36.40
Other	8.80	4.57
Total Cropping Cost	**$57.78**	**$55.30**

Acres Harvested

Item	All Farms Acres/Cow	2001 Top 25% Acres/Cow
Forage Acres	2.93	2.74
Corn Silage Acres	0.27	0.23
Corn Grain Acres	0.27	0.16
Cereal Acres	0.37	0.54
Protein Acres	0.05	0.00
Other Acres	0.03	0.00
Pasture	0.73	0.70
Total Acres	**4.65**	**4.37**

Management Analysis

		All Farms		Top 25%	
(A) Sales Analysis					
In Quota Milk Price / HL	($/HL)	59.52		59.56	
OEP Milk Price / HL	($/HL)	26.25		27.52	
World Milk Price / HL	($/HL)	13.59		13.53	
Blended Price / HL	($/HL)	$58.02		57.67	
In Quota Milk - % of Total Shipped	(%)	95.7		94.2	
OEP Milk - % of Total Shipped	(%)	3.8		5.4	
World Milk - % of Total Shipped	(%)	0.5		0.3	
Milk Sold per KG Quota Holdings	($/KG)	5,759		5,946	
Litres Sold per KG Quota Holdings	(L/KG)	9,927		10,310	
(B) Production Analysis					
Average # of Cows	(Hd)	66.72		59.45	
Milk Sold per Farm	(HL)	5,496		4,983	
Milk Sold per Cow	(L)	8,237		8,382	
Kg. Quota Holdings per Cow	(Kg./Cow)	0.83		0.81	
Kgs. Of Butterfat produced	(Kg)	20,871		19,208	
Kgs. Of Butterfat per Cow	(Kg./Cow)	313		320	
Kgs. Of Protein Produced	(Kg)	18,050		16,386	
Kgs. Of Protein per Cow	(Kg./Cow)	271		276	
Ratio Replacements to Cows	(Replacements/Cows)	0.86		0.92	
Years Farming	(Yrs.)	20		21	
(C) Net Cost of Producing Milk					
Total Cash Expenses	($)	287,868		240,214	
Depreciation	($)	34,938		27,768	
Inventory Change	($)	(24,347)		(45,277)	
Interest on Equity (1)	($)	20,769		17,830	
Unpaid Family Labour	($)	4,931		4,100	
Operator Labour (2)	($)	25,280		26,400	
Less: Sales (Excl. Milk)	($)	62,040		60,682	
Net Cost of Producing Milk	($)	287,399		210,353	
Less: Milk Receipts	($)	322,394		290,647	
Net Return	($)	34,995		80,294	
Net Cost per HL of Milk	($/HL)	52.30		42.21	
Net cost per KG of BF	($/KG)	13.77		11.05	
(D) Expense Analysis		Per Cow	Per HL	Per Cow	Per HL
Feed Expense	($)	960	11.65	895	10.68
Crop Expense	($)	269	3.26	241	2.88
Machinery Expense (Excluding Depreciation)	($)	303	3.68	235	2.81
Total Feed & Crop Expense	($)	1,532	18.59	1,372	16.37
(E) Labour Analysis					
Hired Labour	(PE's)		1.1		1.0
Unpaid Family Labour	(PE's)		0.2		0.2
Number of Operators (3)	(PE's)		1.2		1.3
Total Labour Units	(PE's)		2.5		2.5
Hired Labour Expense	($/Hr)		12.39		12.18
Total Hired Labour Expenses	($)		35,596		32,191
Cows per PE (3)	(Hd)		26		24
Milk Sold per PE	(HL/PE)		2,160		2,019

1.Interest on equity is assumed to be 5%.

2.A standard figure of $21,000. for one P.E. per year is used.

3.One P.E. (Person Equivalent) is equal to 2600 hours of labour per year, i.e. 50 hours per week times 52 weeks per year. One operator was assumed to be equal to one person equivalent.

Management Factors (By Farm Size)

Item		Farms <50 Cows	Farms 50-80 Cows	Farms >80 Cows
Production Analysis				
Average Number of Cows	(hd)	40	63	103
Milk Sold per Farm	(HL)	3,164	5,128	8,695
Milk Sold per Cow	(L)	7,930	8,196	8,408
Kgs of Butterfat Produced per Farm	(kg)	12,279	19,191	33,076
Kgs of Butterfat Produced per Cow	(kg)	308	307	320
Average Kgs Shipped per Day	(kg/day)	34	53	91
Investment Analysis				
Average Investment per Cow				
Current Assets	($)	2,991	2,839	3,347
Machinery and Equipment	($)	2,097	1,290	1,738
Buildings	($)	1,580	1,450	1,934
Land	($)	2,231	1,906	2,246
Milk Quota	($)	5,480	5,717	7,723
Co-op Dairy Investment	($)	1,002	855	839
Other Farm Assets	($)	106	176	221
NISA Investments	($)	39	32	64
Total Invested Capital Per Cow		15,526	14,265	18,110
Total Liabilities per Cow	($)	8,991	7,411	11,736
Owners' Equity per Cow	($)	6,535	6,855	6,374
Return on Invested Capital	(%)	8.6	10.0	8.6
Return on Owners' Equity	(%)	12.2	13.9	13.6
Labour Analysis				
Hired Labour	(PE's)	0.6	1.0	1.8
Unpaid Family Labour	(PE's)	0.2	0.1	0.3
Number of Operators	(PE's)	1.1	1.2	1.3
Total Labour Units	(PE's)	2.0	2.4	3.4
Hired Labour Expenses	($/hr)	11.78	10.93	13.68
Total Hired Labour Expenses	($)	19,720	28,462	63,229
Cows per PE	(hd)	20	26	31
Milk Sold per PE	(HL/PE)	1,562	2,171	2,571

Management Factors		2001 78 Farms	2000 74 Farms	1999 63 Farms	1998 71 Farms
Cows per Farm	(#)	67	70	60	59
Milk Sold per Farm	(HL)	5,496	5,712	4,882	4,535
Milk Sold per Cow	(L)	8,237	8,147	8,085	7,752
Milk Sold per Cow	($)	4,779	4,529	4,542	4,282
Purchased Feed per Cow	($)	960	878	863	961
Purchased Feed per HL Milk Sold	($)	11.65	10.78	10.67	12.39
Crop Expenses per HL Milk Sold	($)	3.26	3.51	3.80	4.03
Machinery Expense per HL Milk Sold	($)	3.68	3.71	3.35	3.24
Total Feed & Crop Expense per HL	($)	18.59	18.00	17.81	19.66
Hired Labour - Person Equivalents	(#)	1.1	1.2	0.9	0.9
Operator & Family Labour - Person Equivalents	(#)	1.4	1.5	1.3	1.4
Milk Sold per Person Equivalent	(HL)	2,160	2,130	1,990	2,183
Cows per Person Equivalent	(#)	26	26	25	27
Total Farm Income	($)	408,782	410,473	345,495	311,554
Total Farm Expense	($)	322,807	328,046	278,506	257,868
Net Farm Income	($)	85,975	82,428	66,989	53,687
Total Farm Income in $/HL	($)	74.38	71.86	70.77	68.70
Total Farm Expense in $/HL	($)	58.74	57.43	57.05	56.87
Net Farm Income in $/HL	($)	15.64	14.43	13.72	11.84
Net Farm Income as % of Sales	(%)	21.03	20.08	19.40	17.23
Variable Cost as % of Total Sales	(%)	57.47	57.52	57.10	59.50
Fixed Cost as % of Total Sales	(%)	21.49	22.40	23.50	23.30
Total Assets	($)	1,085,248	1,065,901	852,100	683,710
Total Liabilities	($)	646,239	670,758	536,471	444,304
Total Equity	($)	439,009	395,143	315,629	239,406
Equity in Farm Business	(%)	40	37	37	36
Return on Equity	(%)	13.4	13.6	11.2	9.0
Return on Assets	(%)	9.0	8.9	8.03	7.6
Capital Turnover	(YRS)	0.4	0.4	0.4	0.4
Total Assets per HL	($/HL)	197	187	175	151
Liabilities per HL	($/HL)	118	117	110	98
Operating Expense Ratio	(%)	61	61	61	64
Total Liabilities/Gross Revenue		1.6	1.6	1.6	1.4
Cost Control (Net Income/Total Expenses)	(%)	21	20	19.0	17
Degree of Leverage (Contribution Margin/Fixed Expenses)		2.0	1.9	1.80	1.7
Working Capital	($)	130,758	130,670	110,562	108,861
Current Assets/Current Liabilities		2.7	3.2	3.4	3.4
Total Assets/Total Liabilities		1.7	1.6	1.6	1.5
Debt/Equity		1.5	1.7	1.7	0.7

Mink
Farm Business
Management
Analysis

Income Statement
Average - 8 Farms

	Total	Per Breeding Female*	Per Mink Produced**
REVENUE			
Pelt Sales (Note 1)	$432,952	$143.22	$41.27
Breeding Stock	99,038	32.76	9.44
Other Mink Sold	0	0.00	0.00
Feed Sales	12,304	4.07	1.17
Subsidies	6,783	2.24	0.65
Miscellaneous	2,334	0.77	0.22
Adjustment for Inventory Change	33,189	10.98	3.16
TOTAL REVENUE	$586,600	$194.05	$55.91
VARIABLE COSTS			
Breeding Stock Purchases	$ 500	$0.17	$0.05
Other Mink Purchased	0	0.00	0.00
Feed & Supplements	154,044	50.96	14.68
Vet & Medicine	8,032	2.66	0.77
Supplies	5,701	1.89	0.54
Marketing	29,733	9.84	2.83
On-Farm Pelting	0	0.00	0.00
Custom Pelting	38,937	12.88	3.71
Hired Labour (Non-Pelting)	88,882	29.40	8.47
Truck & Machinery - Fuel & Repairs	12,679	4.19	1.21
Building Repairs	4,039	1.34	0.38
Utilities	3,928	1.30	0.37
Interest on Operating Loans	9,679	3.20	0.92
Other Cash Operating Costs	5,902	1.95	0.56
TOTAL VARIABLE COSTS	$362,054	$119.77	$34.51
CONTRIBUTION MARGIN (Note 2)	$224,547	$74.28	$21.40
FIXED COSTS			
Term Leases & Rentals	6,014	1.99	0.57
Insurance & Taxes	3,032	1.00	0.29
Interest on Long-Term Debt	10,702	3.54	1.02
Depreciation	29,685	9.82	2.83
TOTAL FIXED COSTS	$49,433	$16.35	$4.71
TOTAL COSTS	$411,486	$136.12	$39.22
NET INCOME (LOSS) (Note 3)	$175,114	$57.93	$16.69

* Number of females is determined by averaging the beginning and ending number of females.

** The number of mink produced equals total pelt sales + breeding stock sales + other mink sales + ending inventory of breeding stock and pelt carry over - beginning inventory of breeding stock and pelt carry over.

Note 1: All US dollars were converted into Canadian dollars using the actual exchange that the producer received at the time of payment.

Note 2: Contribution Margin: Total farm cash revenues less total farm variable costs. This is the amount available to cover fixed costs and profit.

Note 3: Net Income = Return to operator and unpaid family labour, management and equity capital.

Balance Sheet

ASSETS			
		2001	2000
CURRENT ASSETS			
Cash		$55,857	$51,753
Accounts Receivable (Note 1)		319,777	298,854
Inventory (Note 2)			
Mink, Pelts	53,875		
Feed	2,238	56,113	46,176
Other Current Assets		33,659	23,548
TOTAL CURRENT ASSETS		$465,406	$420,331
LONG TERM ASSETS			
Breeding Stock		$221,709	$198,456
Machinery & Equipment (Note 3)		50,634	46,127
Land, Buildings, and Pens (Note 3)		173,175	166,273
Other Fixed Assets		47,394	40,405
TOTAL LONG TERM ASSETS		$492,912	$451,262
TOTAL ASSETS		$958,318	$871,593
LIABILITIES AND OWNERS' EQUITY			
CURRENT LIABILITIES (Note 4)		$112,273	$137,157
LONG TERM LIABILITIES		112,717	134,644
TOTAL LIABILITIES		$224,990	$271,801
OWNERS' EQUITY		$733,328	$599,792
TOTAL LIABILITIES AND OWNERS' EQUITY		$958,318	$871,593

Note 1: For purposes of this study, current income and expenses are recorded on an accrual basis. The pelts which were produced in the current year are sold at the sale the following year. These pelts appear as income in the current year and as accounts receivable at the fiscal year end. When payment is received for the pelts, it is debited to the cash account with a corresponding reduction in accounts receivable.

Note 2: Livestock inventory includes all pelts that were carried over from the previous year. Crops and supplies inventory includes all feed, and supplies on hand at year-end. Inventory values are based on Fair Market Value at fiscal year end.

Note 3: All depreciable assets are valued at "cost less accumulated depreciation", or book. Land is valued at its original cost or acreage x $200. per acre.

Note 4: Current Liabilities include all debts that are due within one year, including the current portion of long term debt.

Financial Analysis

Financial Measure		2001	2000
1. Liquidity:			
Current Ratio		4.15	3.06
Working Capital	($)	353,134	283,174
2. Solvency:			
Percent Equity	(%)	76.5	68.8
Debt to Equity Ratio		0.31	0.45
3. Profitability:			
Return on Assets	(%)	19.4	23.5
Return on Equity	(%)	23.6	31.5
Capital Turnover	(Yrs)	1.63	1.69
4. Financial Efficiency:			
Interest as % of Revenue	(%)	3.47	4.00
Contribution Margin Ratio		0.38	0.34
Disposable Income	($)	182,311	$151,407
5. Miscellaneous Financial Analysis:			
Total Assets ($ per breeder female)		317.01	288.32
Total Liabilities ($ per breeder female)		74.43	89.91

Management Analysis

Livestock Production					
Pelts Sold	(#)	8050	Pelts Produced per Female	(pl/hd)	3.5
Breeding Stock Sold	(hd)	2,102	Breeder Females Housed	(hd)	3,023
Other Mink Sold	(hd)	0	Breeder Males Housed	(hd)	435
Number of Pelt Sales per			Females per Male	(hd)	6.9
Breeder Female	(pl/hd)	2.7	Total Mink (Mature) Produced	(hd)	10,491

Labour Analysis					
Hired Labour Units (2)	(PE's)	3.2	Hired Labour Expense	($)	88,882
Unpaid Family Labour Units	(PE's)	0.0	Hired Labour Wage Rate	($/hr)	10.79
Number of Operators (3)	(PE's)	0.9	Pelting Labour Expense	($)	0
Total Labour Units	(PE's)	4.0	Breeder Females Per Person		
Mink Produced per Person	(hd)	2,596	Equivalent	(hd)	748

Analysis of Sales

Average Price Of:			**Pelt Size As A Percentage of Total Pelts**		
				Male	**Female**
Dark Male Pelts	($)	58.00			
Dark Female Pelts	($)	50.25	(0/1)	49.8	0.8
All Dark Pelts	($)	54.82	2	7.9	14.0
Mutations	($)	37.05	3	1.2	19.4
Breeder Pelts	($)	33.27	4	0.3	5.9
			5	0.0	0.7
			Total	59.2	40.8

Pelt Quality				**Male**	**Female**
Male Pelts	(%)	57.1	Select Maj/BlGlama	61.8	68.2
Female Pelts	(%)	40.2	Majestic/Glama	9.5	8.0
Breeder Pelts	(%)	2.7	Mutations	2.0	3.3
Total	(%)	100.0	Standard/Low Grade	26.8	20.5
			Total	100.00	100.00

Net Cost of Production	**Per Farm**	**Per Female**	**Per Mink Produced**
Total Cash Expenses	$381,802	$126.30	$36.39
Plus: Depreciation	29,685	9.82	2.83
Inventory Change (Feed, Supplies)	0	0.00	0.00
Interest on Average Equity @ 6.0%	39,994	13.23	3.81
Unpaid Family Labour	500	0.17	0.05
Operator Labour	17,680	5.85	1.69
Less: Other Income	14,638	4.84	1.40
Net Cost of Producing Mink	$455,022	$150.52	$43.37

(1) The number of breeder males and the number of breeder females is determined by averaging the beginning and ending number of males or females kept for breeding.
(2) One P.E. or person equivalent is equal to 2600 hours of labour per year.
(3) One operator is equal to one person equivalent (1.0 P.E.).

Swine Farm Business Management Analysis

Farrow to Finish

Income Statement
Average - 18 Farms

REVENUE	Head Shipped	Total	Per Sow	Percent of Total Revenue
Market Hogs	4,214	$698,206	$2,826.75	78.35
Weanlings	632	31,971	129.44	3.59
Gilts - Breeding Stock	163	59,359	240.32	6.66
Boars - Breeding Stock	4	4,058	16.43	0.46
Cull Sows	100	21,682	87.78	2.43
Cull Boars	4	471	1.91	0.05
Other Hogs	21	2,913	11.79	0.33
TOTAL HOG SALES		818,660	3,314.41	91.86
Risk Management Payments		0	0.00	0.00
NISA/AIDA Programs		11,467	46.42	1.29
Other Assistance Programs		10,138	41.04	1.14
Other Income		36,608	148.21	4.11
TOTAL CURRENT INCOME		876,873	3,550.09	98.39
Value of Inventory Change		14,307	57.92	1.61
TOTAL REVENUE		$891,180	$3,608.02	100.00
VARIABLE EXPENSES				
Feed Purchased		$430,406	$1,742.53	48.30
Swine Purchased		54,072	218.91	6.07
Hired Labour		73,422	297.26	8.24
Bedding		1,240	5.02	0.14
Vet and Drugs		13,003	52.64	1.46
Hog Supplies		6,098	24.69	0.68
Risk Management Payments		0	0.00	0.00
Marketing Costs		6,646	26.91	0.75
Utilities		24,014	97.22	2.69
Truck & Machinery*		11,988	48.53	1.35
Auto Expense		13,430	54.37	1.51
Interest - Operating		6,807	27.56	0.76
Professional Fees		3,534	14.31	0.40
Miscellaneous		4,190	16.96	0.47
Other Non-Hog Expenses		15,198	61.53	1.71
TOTAL VARIABLE EXPENSES		$664,047	$2,688.45	74.51
CONTRIBUTION MARGIN		$227,133	$919.57	25.49
FIXED EXPENSES				
Leases and Rentals		3,520	14.25	0.39
Building & Equipment Repairs		23,431	94.86	2.63
Depreciation		46,336	187.59	5.20
Interest - Term Loans		36,643	148.35	4.11
Taxes		5,056	20.47	0.57
Insurance		7,309	29.59	0.82
TOTAL FIXED EXPENSES		$122,294	$495.12	13.72
TOTAL EXPENSES		**$786,341**	**$3,183.57**	**88.24**
NET FARM INCOME (LOSS)		$104,839	$424.45	11.76

* Truck and Machinery includes the hog shipping charges.

Balance Sheet

ASSETS	Ending	Beginning
Current Assets		
Cash On Hand	$14,870	$12,545
Accounts Receivable	33,111	17,205
Inventory		
Production Livestock	161,839	159,526
Feed	25,321	16,152
Other Current Assets	16,209	12,832
TOTAL CURRENT ASSETS	$251,170	$218,261
Long Term Assets		
Breeding Livestock	$71,863	$69,037
Machinery & Equipment	96,886	80,170
Land & Buildings	404,314	367,357
Other Fixed Assets	100,573	75,387
TOTAL LONG TERM ASSETS	$673,635	$591,950
TOTAL ASSETS	$924,805	$810,211
TOTAL LIABILITIES AND OWNERS' EQUITY		
Current Liabilities	$122,711	$117,821
Long Term Liabilities	$519,422	$465,507
TOTAL LIABILITIES	$642,133	$583,327
Beginning Equity	$226,883	
+ Net Income	104,839	
- Withdrawal's	(49,051)	
OWNERS' EQUITY	$282,671	$226,883
TOTAL LIABILITIES AND OWNERS' EQUITY	$924,805	$810,211

Financial Analysis

Financial Measure	Ending	Beginning
1. **Liquidity:**		
Current Ratio	2.05	1.85
Working Capital	$128,459	$100,440
2. **Solvency:**		
Percent Equity	30.6%	28.0%
Debt/Equity Ratio	2.27	2.57
Assets per Sow	$3,744	
Debt per Sow	$2,600	
3. **Profitability:**		
Return on Assets	14.4%	
Return on Equity	31.9%	
Capital Turnover	1.04	
4. **Financial Efficiency**		
Interest as % of Revenue	4.9%	
Contribution Margin	25.5%	

Production Analysis

(A) Cost of Production	Total	Per Sow
Total Farm Expenses	$786,341	$3,183.57
Plus: Adj. for Livestock Inventory Change	(5,138)	(20.80)
Less: Non Hog Expenses	15,198	61.53
Cull Sales	22,153	89.69
Hog Purchases	10,254	41.51
Total Costs	$733,598	$3,031.56
Total Kgs. of Pork Produced (L.W.)	490,574	
Average Cost of Production (L.W.)	$1.50	
Average Cost of Production (D.W.)	$1.92	

(B)Inventory Flow	Boars	Sows	Piglets	Production Stock*
Beginning Inventory	10	242	316	2,052
+ Purchases/Births	3	99	6,014	192
+ Transfers In		24		5,214
+ Transfers Out			5,214	24
- Sales	4	100		5,033
- Deaths		12	773	255
- Ending Inventory	9	252	343	2,082
Discrepancy	(1)	0	0	63

(C) Livestock Production Analysis

Farrowing Unit			
Pigs Born	6,558		
Pigs Born Alive	6,014	Pigs Weaned	5,214
Still Births (#)	544	Suckling Mortality (#)	773
Still Births (%)	8.3%	Suckling Mortality (%)	12.9%
Breeding Herd Performance		Average # of Boars	9.6
Number of Litters	558	Sows per Boar	25.8
Average Number of Sows	247	Pigs Born per Sow	26.5
Litters per Sow	2.26	Pigs Born Alive per Sow	24.3
Pigs Born Per Litter	11.7	Pigs Weaned per Sow	21.1
Pigs Born Alive/Litter	10.8	Sow Mortality	12
Pigs Weaned/Litter	9.3	Sow Cull Rate	40.5%
Pigs Marketed/Sow	20.6		
Weaner & Finishing Unit		**Inventory Discrepancy**	
Weaner & Feeder Hog Mortality		Number	63
Number	255	Percent	1.2%
Percent	4.9%		

* Production Stock includes Weaners, Feeders and Breeding Stock.

(D) Feed Usage Analysis		
Sow Ration Fed per Sow & Boar	(kgs)	1,112
Total Kgs. Of Pork Produced (L.W.)	(kgs)	490,574
Total Kgs. Of Feed Consumed		1,515,521
Feed Conversion - Creep, Starter & Grower		2.51
Feed Conversion - Total Feed (L.W.)		3.09

FARROWING UNIT (PER WEANER PIG TRANSFERRED TO FINISHING OR SOLD)			
	Kgs. Per Head	**Dollars Per Head**	**Cost Per Tonne Fed**
Creep	2.90	$1.96	$674.50
Starter	35.40	12.40	$350.38
Sow & Boar Feed	54.73	14.34	$262.08
Total Feed per Pig Weaned	93.02	28.70	
FINISHING UNIT (PER HOG MARKETED)			
Starter	0.61	0.21	$350.38
Grower	140.00	37.22	$265.83
Finisher	93.55	24.66	$263.60
Total Feed per Finished Hog	234.16	62.09	
TOTAL FEED (FARROW TO FINISH)	327.18	$90.79	$277.49

(E) RISK MANAGEMENT ANALYSIS			
Market Hog Equivalents Calculation	Hd Shipped	MHE Factor	Market Hog Equivalents
Market Hogs Sold	4,214	1.00	4,214
Weaner Pigs Sold	632	0.33	211
Breeding Stock Sales	166	1.20	200
Culls & Other Sales	125	0.75	94
Total Market Hog Equivalents Produced			4,718
Calculation of Costs:			Per Market
Additional Costs		Total	Hog Equiv.
Total Farm Expenses		$786,341	$166.66
Plus: Adj. For Livestock Inv. Change		(5,138)	(1.09)
Less: Non-Hog Expenses		15,198	3.22
Total Costs		$766,005	$162.35
Less: Feed Expenses		430,406	91.22
Total "Additional Costs" (Excl. Feed)		$335,599	$71.13
Return to Operator Labour:		Total	Man Equiv.
Operator Labour Rate per Person Equiv.		$35,000	$7.42
Operator Labour Person Equivalent		1.03	1.03
Value for Operator Labour Cost		$36,167	7.67
Feed Cost Calculation:			
Feed Conversion D.W.(Kgs Feed/Kgs Pork)		3.86	3.86
Average D.W. per Market Hog(kgs)		85.19	85.19
Total Feed per Market Hog(kgs)		328.98	328.98
Average Feed Cost per Tonne*		$278.39	$278.39
Feed Cost per Market Hog Equivalent *		$91.59	$91.59
Total Costs per Market Hog Equivalent			$170.38

* Feed Costs are based on feed expense for the entire year. The RMS calculation uses actual costs of feed ingredients as they occur each week.

Management Analysis

(F) Labour		
Labour Person Equivalents	(#)	3.63
Hogs Produced per Person (L.W.)	(Kgs)	135,331
Gross Farm Income per Person	($)	245,843
Sows Kept Per Person*	(#)	68
Total Pigs Produced per Person	(#)	1,403
Net Income per Operator	($)	101,457

Market Analysis

(G) Market Analysis		
Ave. L.W. of Market Hogs Sold	(Kgs)	106.49
Average D.W. per Market Hog	(Kgs)	85.19
Average Carcass Grade Index		108.4
Average Market Price For Your Operation		$1.94
Market Return per Hog Marketed		$165.69
Risk Management Payments		0.00
Total Return per Market Hog		$165.69
Weaner Price Received	(Per Weaner)	$50.58
Breeding Stock Sale Prices		
Gilts		$365.03

Swine
Farm Business
Management
Analysis

Finishing

Income Statement
Average - 7 Farms

Revenue	Head Shipped	Total	Per Sow	Percent Of Total Revenue
Market Hogs	4,409	$733,339	$163.19	93.7
Other Hogs	85	5,174	1.15	0.7
TOTAL HOG SALES		738,512	164.34	94.3
Risk Management Payments		0	0.00	0.0
NISA/AIDA Programs		8,523	1.90	1.1
Other Assistance Programs		3,395	0.76	0.4
Other Income		26,586	5.92	3.4
TOTAL CURRENT INCOME		777,017	172.91	99.3
Value of Inventory Change		5,840	1.30	0.7
TOTAL REVENUE		$782,857	$174.21	100.0
VARIABLE EXPENSES				
Feed Purchased		$311,386	$69.29	39.8
Swine Purchased		251,076	56.01	32.2
Hired Labour		26,234	5.84	3.4
Bedding		74	0.02	0.0
Vet and Drugs		1,131	0.25	0.1
Hog Supplies		2,754	0.61	0.4
Marketing Costs		8,199	1.82	1.0
Risk Management Service		0	0.00	0.0
Utilities		8,327	1.85	1.1
Machinery Expense		2,845	0.63	0.4
Auto Expense		4,693	1.04	0.6
Professional Fees		1,769	0.39	0.2
Lease & Rental		10,328	2.30	1.3
Interest - Operating		1,855	0.41	0.2
Miscellaneous		1,877	0.42	0.2
Other Non-Hog Expenses		15,337	3.41	2.0
TOTAL VARIABLE EXPENSES		$648,515	$144.31	82.8
CONTRIBUTION MARGIN		134,341	29.89	17.2
FIXED EXPENSES				
Building & Equipment Repairs		$6,777	$1.51	0.9
Depreciation		34,577	7.69	4.4
Interest - Term Loans		28,892	6.43	3.7
Taxes		2,655	0.59	0.3
Insurance		3,581	0.80	0.5
TOTAL FIXED EXPENSES		$76,482	$17.02	9.8
TOTAL EXPENSES		$724,998	$161.33	92.6
NET FARM INCOME (LOSS)		$57,859	$12.88	7.4

Balance Sheet

Assets		Ending	Beginning
Current Assets			
Cash On Hand		$997	$3,189
Accounts Receivable		12,644	5,846
Inventory			
Livestock	$135,829		
Feed	26,523	162,352	156,825
Other Current Assets		26,086	23,269
TOTAL CURRENT ASSETS		$202,079	$189,129
Long Term Assets			
Machinery & Equipment		$90,791	$86,142
Land & Buildings		251,072	233,423
Other Fixed Assets		91,567	80,212
TOTAL LONG TERM ASSETS		$433,430	$399,776
TOTAL ASSETS		$635,508	$588,905
TOTAL LIABILITIES AND OWNERS' EQUITY			
Current Liabilities		114,627	98,044
Long Term Liabilities		390,881	354,747
TOTAL LIABILITIES		$505,508	$452,791
Beginning Equity		136,114	
+ Net Income		57,859	
- Withdrawals		(63,973)	
OWNERS' EQUITY		$130,000	$136,114
TOTAL LIABILITIES AND OWNERS' EQUITY		$635,508	$588,905

Financial Analysis

Financial Measure	Ending	Beginning
1. **Liquidity:**	1.76	1.93
Current Ratio	$87,452	$91,085
Working Capital		
2. **Solvency:**	20.5%	23.1%
Percent Equity	3.9	3.3
Debt/Equity Ratio	$106.93	
Debt per Market Hog Equivalent		
3. **Profitability:**	12.2%	
Return on Assets*	33.0%	
Return on Equity	1.23	
Capital Turnover		
4. **Financial Efficiency**	3.9%	
Interest as % of Revenue	17.2%	
Contribution Margin		

* Return on Assets = $\frac{\text{(Net Income + Interest - Unpaid Labour)}}{\text{Average Total Assets}}$

Production Analysis

(A) Cost Of Production	Total	Per Market Hog
Total Farm Expenses	$724,998	$161.79
Less: Other Income	15,337	3.42
Plus: Adj. for Inventory Change	(5,840)	(1.30)
Return on Owners' Equity (@5%)	10,056	2.24
Unpaid Operator & Family Labour	13,980	3.12
Total Costs	727,856	162.43
Total Kgs. of Pork Produced (Kgs. L.W.)	412,143	92.0
Average Cost of Production ($/Kg. D.W.)	$2.21	$2.21

(B) Market Analysis		
Ave. D.W. per Market Hog	(Kgs)	84.02
Average Carcass Grade Index	(Kgs)	109.2
Average Market Price for Your Operation	($/Kg)	$1.98
Market Return per Hog Marketed		$166.34
Risk Management Payments		0.00
Total Return per Market Hog		$166.34
Average Total Return	($/Kg)	$1.98

(C) Feed Use			
Feed Cost/Kg Produced (L.W.)		($/Kg)	$0.74
Feed Cost/100 Kgs of Gain (D.W.)		($/100 Kg)	$92.77
Feed Cost/100 Kgs of Gain (L.W.)		($/100 Kg)	$74.22
Feed Conversion - Starter & Grower L.W.		(Feed/Gain)	2.74
	Kgs. Per Hog	**Dollars Per Hog**	**Cost Per Tonne Fed**
Starter Ration	33	$11.11	$340.77
Grower Ration	154	41.00	$265.98
Finisher Ration	66	16.15	$246.56
Total Feed	252	$68.26	

(D) Labour		
Labour Person Equivalents*	(#)	1.5
Operator & Family Labour Equiv.	(#)	0.7
Production per Person (L.W.)	(Kgs)	281,189
Gross Farm Income per Person	($)	534,113
Net Income per Operator & Family Labour	($)	86,913
Market Hog Equivalents Per Person	(#)	3,057

* One PE (Person Equivalent) is equal to one full time person for one year.

(E) Inventory			
Purchases of Weaners	(Hd)	4,639	
Feeder Hog Mortality	(Hd)	169	3.77%
Inventory Discrepancy	(Hd)	(2)	
Market Hog Equivalents*	(Hd)	4,481	
Inventory Change	(Hd)	(26)	
Market Hogs Sold	(Hd)	4,409	

* Note: Market Hog Equivalents = Market Hogs Sold + Other Hogs Sold
+ (Ending Inventory - Beginning Inventory) ÷ 2

Swine
Farm Business
Management
Analysis

Sow-Weanling

Income Statement
Average - 4 Farms

Revenue	Head Shipped	Total	Per Sow	Per Weaner Produced
Weanlings	6,813	$338,531	$930.35	$49.69
Market Hogs	424	69,588	191.24	10.21
Cull Sows	140	32,205	88.50	4.73
Cull Boars	5	689	1.89	0.10
Other Hogs	0	0	0.00	0.00
TOTAL HOG SALES		$441,013	$1,211.99	$64.73
Risk Management Payments		0	0.00	0.00
NISA/AIDA Programs		6,401	17.59	0.94
Other Assistance Programs		4,804	13.20	0.71
Other Income		7,112	19.54	1.04
TOTAL CURRENT INCOME		$459,329	$1,262.33	$67.42
Value of Inventory Change		(1,302)	(3.58)	(0.19)
TOTAL REVENUE		$458,027	$1,258.75	$67.23
VARIABLE EXPENSES				
Feed Purchased		$165,197	$453.99	$24.25
Swine Purchased		50,059	137.57	7.35
Hired Labour		33,186	91.20	4.87
Bedding		1,789	4.92	0.26
Vet and Drugs		23,126	63.55	3.39
Hog Supplies		4,467	12.28	0.66
Marketing Costs		2,661	7.31	0.39
Utilities		15,364	42.22	2.25
Truck & Machinery Expense		2,392	6.57	0.35
Auto Expense		5,081	13.96	0.75
Interest - Operating		5,699	15.66	0.84
Miscellaneous		4,288	11.78	0.63
Other Non-Hog Expenses		667	1.83	0.10
TOTAL VARIABLE EXPENSES		$313,973	$862.86	$46.08
CONTRIBUTION MARGIN		$144,053	$399.47	$21.33
FIXED EXPENSES				
Rental / Lease / Custom Work		$3,752	$10.31	$0.55
Building & Equipment Repairs		12,686	34.86	1.86
Depreciation		43,953	120.79	6.45
Interest - Term Loans		31,836	87.49	4.67
Taxes		3,391	9.32	0.50
Insurance		3,921	10.77	0.58
TOTAL FIXED EXPENSES		$99,537	$273.55	$14.61
TOTAL EXPENSES		$413,510	$1,136.41	$60.69
NET FARM INCOME (LOSS)		$44,516	$122.34	$6.53

Balance Sheet

Assets		Ending	Beginning
Current Assets		$30,178	$4,955
Cash On Hand		9,638	6,063
Accounts Receivable			
Inventory			
Livestock	32,456		
Feed	4,852	37,308	35,755
Other Current Assets		15,927	5,025
TOTAL CURRENT ASSETS		$93,050	$51,799
Long Term Assets			
Breeding Livestock		$111,083	$113,938
Machinery & Equipment		86,283	93,267
Land & Buildings		291,281	301,081
Other Fixed Assets		39,303	34,269
TOTAL LONG TERM ASSETS		$527,950	$542,554
TOTAL ASSETS		$621,000	$594,352
TOTAL LIABILITIES AND OWNERS' EQUITY			
Current Liabilities		$71,627	$74,779
Long Term Liabilities		$487,189	$508,756
TOTAL LIABILITIES		$558,816	$583,535
Owners' Equity - Beginning		$10,817	
+ Net Income		44,516	
- Owners' Net Contributions (Withdrawals)		6,850	
OWNERS' EQUITY		$62,184	$10,817
TOTAL LIABILITIES AND OWNERS' EQUITY		$621,000	$594,352

Financial Analysis

Financial Measure	Ending	Beginning
1. **Liquidity:**		
Current Ratio	1.30	0.69
Working Capital	$21,423	—
2. **Solvency:**		
Percent Equity	10.0%	1.8%
Debt/Equity Ratio	9.0	53.9
Assets per Sow	$1,718	$1,623
Debt per Sow	$1,546	$1,593
3. **Profitability:**		
Return on Assets	13.8%	
Return on Equity	71.6%	
Capital Turnover	1.36	
4. **Financial Efficiency**		
Interest as % of Revenue	8.2%	
Contribution Margin	31.5%	

Production Analysis

(A) Cost Of Production	Total	Per Sow
Total Farm Expenses	$413,510	$1,136.41
Plus: Adj. for Lvstk. Inventory Change	3,376	9.28
Less: Cull Sales	32,894	90.40
Hog Purchases	404	1.11
Total Costs	$383,589	$1,054.18
Total Kgs. of Weaner Produced (Kgs. L.W.)	119,023	327
Average Cost of Production: Per Kilogram	$3.22	
Per Weaner	$53.27	

(B) Inventory Flow	Boars	Sows	Piglets	Production Stock*
Beginning Inventory	11	366	437	480
+ Purchases/Births	2	142	8,685	1
+ Transfers In		15		7,263
+ Transfers Out			7,263	15
- Sales	5	140		7,238
- Deaths		22	1,272	70
- Ending Inventory	8	362	588	429
Discrepancy	(1)	0	0	(8)

(C) Livestock Production Analysis			
Farrowing Unit			
Pigs Born	9,590		
Still Births (#)	905	Suckling Deaths	1,272
Still Births (%)	9.4%	Suckling Mortality	14.6%
Pigs Born Alive	8,685	Pigs Weaned	7,263
Breeding Herd Performance			
Number of Litters	788	Average # of Boars	9.4
Average Number of Sows	364	Sows per Boar	38.8
Litters per Sow	2.2	Sow Cull Rate	38.4%
Pigs Born per Litter	12.2	Born per Sow	26.4
Pigs Born Alive per Litter	11.0	Born Alive per Sow	23.9
Pigs Marketed per Sow	19.8	Weaned per Sow	20.0
Weaner & Finishing Unit			
Weaner & Feeder Hog Mortality		Inventory Discrepancy	
Number	70	Number	(8)
Percent	1.0%	Percent	(0.1%)

* Production Stock includes Weaners, Feeders and Breeding Stock.

(D) Livestock Analysis		
Average L.W. per Weanling Sold	(kg)	11.18
Market Return per Weaner	($)	49.69

(E) Labour		
Labour Person Equivalents	(#)	2.16
Weaners Produced Per Person	(Kgs)	55,039
Weaners Produced Per Person	(#)	3,330
Sows Kept Per Person*	(#)	168
Gross Farm Income Per Person	($)	211,804

* One PE (Person Equivalent) is equal to one full time person for one year.

(F) Feed Analysis

Farrowing Unit (Per Weaner Pig Transferred to Finishing or Sold)

	Kgs	**Dollars**	**Per Tonne**
Creep Feed	1.12	$1.01	$901.79
Starter	8.08	2.98	$368.81
Sow & Boar Feed	55.81	14.33	$256.76
Total Feed per Weaner	65.01	$18.32	
Feed per Sow & Boar	1077.00	$276.53	

Tree Fruit Farm Business Management Analysis

Statement of Revenues
Average - 9 Farms

	# Bushels	Total $'s	$/Total Bus.	% of Total
Fresh Apple Sales	17,236	$120,473	$3.26	53.71
U-Pick Apple Sales	240	1,983	0.05	0.88
Processed Apples	8,526	38,641	1.05	17.23
Juice/Cider Apples	10,899	21,377	0.58	9.53
Total Apples Sales	**36,901**	**$182,474**	**$4.94**	**81.35%**
Crop Insurance Income		$2,771	$0.08	1.24
Apple Assistance Programs		6,108	0.17	2.72
Other Gov't Assistance Programs		15,289	0.41	6.82
Misc. Apple Income		1,732	0.05	0.77
Other Apple Revenue		**$25,900**	**$0.70**	**11.55%**
Other Tree Fruits		$6,274	$0.17	2.80
Other Crops		2,981	0.08	1.33
Miscellaneous Income		6,670	0.18	2.97
Total Non-Apple Revenue		**$15,925**	**$0.43**	**7.10%**
Total Farm Revenue		**$224,299**	**$6.08**	**100.00%**

Statement of Expenses

	Total $'s	$'s Per Bushel	% of Total
Harvesting Labour	$40,233	$1.09	19.54
Other Labour	38,999	1.06	18.94
Spray: Herbicides	2,256	0.06	1.10
Insecticides	12,415	0.34	6.03
Fungicides	13,206	0.36	6.41
Other	2,285	0.06	1.11
Fertilizers & Lime	6,396	0.17	3.11
Containers & Bins	3,289	0.09	1.60
Rootstalk & Trees	1,395	0.04	0.68
New Orchard Expense	5,392	0.15	2.62
Bee Rental	309	0.01	0.15
Other Orchard Expenses	1,327	0.04	0.64
Fuel & Lubricants	3,691	0.10	1.79
Tractor & Machinery Repair	7,178	0.19	3.49
Truck & Vehicle Expense	3,406	0.09	1.65
Building & Bin Repair	1,805	0.05	0.88
Custom Work & Trucking	10,616	0.29	5.15
Specialized Services	1,828	0.05	0.89
Rental Expense	9,051	0.25	4.40
Office Expense	744	0.02	0.36
Insurance	2,813	0.08	1.37
Utilities	2,637	0.07	1.28
Crop Insurance	2,855	0.08	1.39
Fees & Licenses	1,292	0.04	0.63
Property Taxes	1,173	0.03	0.57
Interest Expense: Operating	2,475	0.07	1.20
Interest Expense: Term	6,221	0.17	3.02
Miscellaneous Expense	995	0.03	0.48
Total Apple Related Expenses	**$186,281**	**$5.05**	**90.45%**
Other Tree Fruits Expense	2,986	0.08	1.45
Other Crops Expense	2,720	0.07	1.32
Miscellaneous Non-Apple	1,611	0.04	0.78
Total Non-Apple Expense	**$7,317**	**$0.20**	**3.55%**
Total Cash Expenses	**$193,598**	**$5.25**	**94.01%**
Building Depreciation	998	0.03	0.48
Machinery & Equipment Depreciation	11,348	0.31	5.51
Total Depreciation	**$12,346**	**$0.33**	**5.99%**
Total Farm Expenses	**$205,944**	**$5.58**	**100.00%**

Income Summary

	Total $'s	$'s Per Bushel
Total Farm Revenue	$224,299.39	$6.08
Total Cash Expenses	$193,597.89	$5.25
Net Cash Income	**$30,701.51**	**$0.83**
Plus: Inventory Change, Supplies	122.22	0.00
Less: Depreciation Expense	12,346.33	0.33
Net Farm Income	**$18,477.39**	**$0.50**
1. Less: Cost for Unpaid Family Labour	153.99	0.00
Less: Interest on Equity @ 6%	7,528.36	0.20
2. Labour and Management Income	$10,795.05	$0.29

1. Unpaid family labour is charged at the farm rates for harvesting and other labour. Management labour was charged at $12 per hour.

2. Labour and Management Income represents the amount of income left the operator for his labour and management skills.

Net Cost of Production

Item		Total $'s	$'s Per Bushel
Total Cash Expenses		$193,598	$5.25
Plus: Other Apple Expenses:	Depreciation	$12,346	0.33
1.	Inventory Change (supplies)	122	0.00
2.	Interest on Equity	7,528	0.20
	Unpaid Family Labour	154	0.00
3.	Operator Labour	22,914	0.62
Total Expenses		**$236,662**	**$6.41**
Less: Non-Apple Income		$39,054	$1.06
Net Cost of Producing Apples		**$197,609**	**$5.35**
Net Return From Apples			
4. Total Apple Income		$185,246	$5.02
Less: Net Cost of Producing Apples		$197,609	$5.35
Net Return From Apples		**($12,363)**	**($0.33)**
Total Bushels of Apples Sold		36,906	1
Total Pounds of Apples Sold		1,550,067	42

1. Ending supplies inventory less beginning supplies inventory.
2. Interest on equity is calculated at 6%
3. Operator labour was charged at $12.75/hr.
4. Crop Insurance proceeds are included as Apple Income.

Balance Sheet at Book Values

	Beginning $'s	Ending $'s
Current Assets		
Cash	($8,770)	($9,981)
Apple Sales Receivable	53,271	45,298
Supplies	4,180	4,302
Other Current Assets	7,261	13,496
Total Current Assets	$55,942	$53,115
Term Assets		
Orchard Land	$83,495	$83,495
Other Land	44,820	44,820
Farm Buildings	25,698	24,860
Machinery & Equipment	54,369	45,838
Other Term Assets	39,923	51,795
Total Term Assets	$248,305	$250,808
TOTAL FARM ASSETS	$304,247	$303,923
Liabilities		
Current Liabilities	$49,987	$50,817
Term Liabilities	127,767	128,654
Total Liabilities	**$177,574**	**$179,471**
Owners' Equity	**$126,493**	**$124,452**

Financial Analysis

			2001
1.	**Liquidity:**		
	Current Ratio		1.05
	Working Capital	$	$2,298
2.	**Solvency:**		
	Percent Equity	%	40.9
	Debt to Equity Ratio		1.44
3.	**Profitability:**		
	Return on Assets	%	1.4
	Return on Equity	%	0.0
	Capital Turnover	Years	1.36
4.	**Financial Efficiency:**		
	Interest as of % of Revenue	%	3.88
	Disposable Income	$	$36,923

Land Use Report

		Acres
Orchard in Apples		77.60
Orchard in Pears		1.06
Orchard in Other Fruit		0.12
Total Orchard		78.77
Cropland and Pasture		49.31
Woodland and Other		256.33
Total Land		384.42
Orchard in Apples, Bearing		66.95
Orchard in Apples, Total		77.60
% of Apple Acreage Bearing		86.28%
Total Number of Trees		16,743
Total Number of Bearing Trees		12,636
Average Density on all Trees	Trees/Acre	215.77
Average Density on Bearing Trees	Trees/Acres	188.73
Average Age of Trees	Years	13.11

Apple Yields	**Bushel/B. Acre**	**Bushel/Tree**
Fresh Apples	261.03	1.38
Processing Apples	127.34	0.67
Cider/Juice Apples	162.78	0.86
Total	551.15	2.92

Production & Management Information

Sales Information - Total Apple Sales by Variety*

Variety	Average $ Received Per Bushel
MacIntosh	6.03
Cortland	6.33
Ida Red	4.10
Gravenstein	6.64
Red Delicious	8.86
Cox Orange	7.03
All Varieties	4.94

* Includes Fresh Sales, U-Pick and Processing.

Yield by Variety

Variety	Bushels Produced	Bushels Per Acre
MacIntosh	12,582	543
Cortland	4,913	549
Ida Red	5,911	905
Gravenstein	1,487	405
Red Delicious	1,923	467
Northern Spy	4,277	477